



Patent  
Case No.: 57072US037

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

First Named Inventor: CHARLES, LESLIE J.  
Application No.: 10/675833 Group Art Unit: 1625  
Filed: September 30, 2003 Examiner: Huang, Evelyn Mei  
Title: HETEROCYCLIC ETHER SUBSTITUTED IMIDAZOQUINOLINES

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

07 January 2004  
Date

Renee A. Wolff  
Signed by: Renee A. Wolff

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. Copies of any cited foreign patents, non-patent literature, and unpublished US application documents are enclosed. Pursuant to the waiver in the Pre-OG Notice, dated July 11, 2003, copies of US patents and published US patent applications are no longer required and are not enclosed. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

Applicants also wish to bring to the Examiner's attention Parent application 10/011,921 (Patent No. 6,664,260), and the Office Actions therefore.

It is believed that no fee is due; however, in the event a fee is required, please charge the fee to Deposit Account No. 13-3723.

Respectfully submitted,

6 JANUARY 2004  
Date

By: Dean A. Ersfeld  
Dean A. Ersfeld, Reg. No.: 46,689  
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Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Page 1 of 4

## U.S. Patent Documents

Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
	A1	US- 3,314,941	04-18-1967	Littell et al.	
	A2	US- 4,689,338	08-25-1987	John F. Gerster	
	A3	US- 4,698,348	10-06-1987	John F. Gerster	
	A4	US- 4,929,624	05-29-1990	Gerster et al.	
	A5	US- 4,988,815	01-29-1991	Andre et al.	
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	A17	US- 5,482,936	01-09-1996	Kyle J. Lindstrom	
	A18	US- 5,693,811	12-02-1997	Lindstrom	
	A19	US- 5,741,908	04-21-1998	Gerster et al.	
	A20	US- 5,756,747	05-26-1998	Gerster et al.	
	A21	US- 5,939,090	08-17-1999	Beaurline et al.	
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	A23	US- 6,069,149	05-30-2000	Nanba et al.	
	A24	US- 6,083,505	07-04-2000	Miller et al.	
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	A28	US- 6,331,539	12-18-2001	Crooks et al.	

\*Examiner:

Date Considered:

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Page 2 of 4

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	A29	US- 6,376,669	04-23-2002	Rice et al.	
	A30	US- 2002/0055517 A1	05-09-2002	Smith	
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	B1	PCT	WO 01/74343	10-11-2001			
	B2	PCT	WO 02/36592	05-10-2002			X
	B3	PCT	WO 02/46188	06-13-2002			
	B4	PCT	WO 02/46189	06-13-2002			
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	B6	PCT	WO 02/46193	06-13-2002			
	B7	PCT	WO 02/46749	06-13-2002			
	B8	PCT	WO 02/102377	12-27-2002			
	B9	PCT	WO 03/020889	03-13-2003			

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Page 3 of 4

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	B12	JP	9-208584	08-12-1997			
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	B15	JP	2000-247884 (abs)	09-12-2000			X
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## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C1	Wozniak, et al, "The Amination of 3-nitro-1, 5-naphthyridines by Liquid Ammonia/Potassium Permanganate <sup>1,2</sup> . A New and Convenient Amination Method.", <u>Journal of the Royal Netherlands Chemical Society</u> , 102, pp 511-513, December 12, 1983.
	C2	Brennan, et al, "Automated Bioassay of Interferons in Micro-test Plates", <u>Biotechniques</u> , June/July, 78, 1983.
	C3	Testerman, et al., "Cytokine Induction by the Immunomodulators Imiquimod and S-27609", <u>Journal of Leukocyte Biology</u> , Volume 58, pp. 365-372, September 1995.
	C4	Bachman, et al, "Synthesis of Substituted Quinolylamines. Derivatives of 4-Amino-7-Chloroquinoline", <u>J. Org. Chem</u> , 15, pp 1278-1284 (1950).
	C5	Jain, et al, "Chemical and Pharmacological Investigations of Some $\omega$ -Substituted Alkylamino-3-aminopyridines", <u>J. Med. Chem.</u> , 11, pp 87-92 (1968).
	C6	Baranov, et al., <u>Chem. Abs.</u> 85, 94362, (1976).
	C7	Berényi, et al, "Ring Transformation of Condensed Dihydro-as-triazines", <u>J. Heterocyclic Chem.</u> , 18, pp 1537-1540 (1981).
	C8	Chollet, et al, "Development of a Topically Active Imiquimod Formulation", <u>Pharmaceutical Development and Technology</u> , 4(1), pp 35-43 (1999)
	C9	Izumi, et al., "1H-Imidazo[4,5-c]quinoline Derivatives as Novel Potent TNF- $\alpha$ Suppressors: Synthesis and Structure-Activity Relationship of 1-, 2- and 4-Substituted 1H-imidazo[4,5-c]pyridines", <u>Bioorganic &amp; Medicinal Chemistry</u> , 11, pp 2541-2550 (2003)
	C10	Sidky et al., "Inhibition of Murine Tumor Growth by an Interferon-inducing Imidazoquinolinamine", <u>Cancer Research</u> , 52, 3528-3533, July 1, 1992.

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Page 4 of 4

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10/675,833

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Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C11	R.L. Miller et al., "Imiquimod applied topically: a novel immune response modifier and new class of drug", <u>International Journal of Immunopharmacology</u> , 21, 1-14 (1999).
	C12	Karl R. Beutner, MD, et al., "Therapeutic response of basal cell carcinoma to the immune response modifier imiquimod 5% cream", <u>J.Am.Acad.Dermatol.</u> , Volume 41, Number 6, 1002-1007 (December 1999).
	C13	Davis et al., "Self-Administered Topical Imiquimod Treatment of Vulvar Intraepithelial Neoplasia", <u>Journal of Reproductive Medicine</u> , Volume 45, Number 8, 619-623, (August 2000).
	C14	Alexander Steinmann et al., "Topical Imiquimod Treatment of a Cutaneous Melanoma Metastasis", <u>J.Am.Acad.Dermatol.</u> , Letters, 555-556 (September 2000).

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